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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,708	10/08/2003	Hsi-Fa Chuang	SAINT-001	5884

7590 09/28/2004

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EXAMINER

VALENZA, JOSEPH E

ART UNIT PAPER NUMBER

3651

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/681,708	Applicant(s) CHUANG, HSI-FA <span style="float: right;">ST</span>	
	Examiner Joseph Valenza	Art Unit 3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 7-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### **DETAILED ACTION**

1. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al in view of Frommenwiler et al.

In Ito et al, the article-conveying line 103 has sliding carriers 110 moved past stations ST by manual pushing (column 1 lines 55-57) or by driven means (column 3, lines 18-21). Carrier-returning line 104 is inclined so that carriers are driven by gravity from first shifting unit 140 to second shifting unit 120. Column 8, lines 17-20 disclose that a powered drive could be used in place of or in addition to the force of gravity along the return line.

As there is no proof that the article being conveyed and worked on is critical to the operation of the claimed system, the articles conveyed in Ito et al are functional equivalents. It would also have been obvious that the controller 170 of Ito et al would additionally control the carrier drive means along the article-conveying line 103 and the carrier-returning line 104 just as it controls the first shifting unit 140 and the second shifting unit 120. The time to convey the carriers the article-conveying line 103 is greater than the time to convey the carriers along the carrier-returning line 104 due to the work times added to the article-conveying line.

Frommenwiler et al has a similar closed path system where the carriers on the article-conveying line 17, 22, etc. are driven simultaneously passed workstations with the same cycle time. It would have been obvious to add this teaching to the article-conveying line 103 of Ito et al.

With regard to claim 3, there is no proof that the position of the carrier-returning line relative to the article-conveying line is critical to the operation of the system.

With regard to claim 4, the design of the first driving unit over the teachings in column 3, lines 18-21 of Ito et al or drives 17, 22, etc. in Frommenwiler et al is an obvious matter of design choice because the prior art drives are functional equivalents.

With regard to claim 5, the design of the second driving unit over the teachings in column 8, lines 17-20 of Ito et al is an obvious matter of design choice because the prior art drive is a functional equivalent.

2. Claims 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

3. Schmidt is pertinent.

4. Any inquiry concerning this communication should be directed to Joseph E. Valenza at telephone number (703) 308-2577. Amendments may be faxed to (703) 872-9306. My normal work week is Monday through Thursday.

A handwritten signature in black ink that reads "Joseph Valenza". The signature is written in a cursive, flowing style with a large initial "J" and "V".

JOSEPH E. VALENZA  
PRIMARY EXAMINER